
Editor's Note: *The following is a message that Dr. Stephanie Bailey, Director of Health, sent to Metro Council members on October 2, 2001.*

Preparedness against Chemical and Biological Attacks

Much has been reported from local and national media over the past two weeks about the possibility of biological and chemical attacks on our great nation. I wanted you to know a few facts about our preparedness. Please feel free to contact my office at 340-5622 if you have questions.

- Are we prepared for a biological or chemical attack? To a great degree, yes! The public health protection factor is strong due to the partnership, coordinated efforts, and understanding of the Mayor's Office of Emergency Management, Fire Department, Police Department, hospitals, American Red Cross, and others.
- The Health Department was part of the OEM team that developed Nashville's disaster response plan. That plan has been in place for nearly two years. We are continually reviewing, updating, and practicing the implementation of the disaster plan.
- The Health Department participated in the 1998 training by the Department of Defense where more than 300 community members were trained as trainers to educate and increase the knowledge base in the event of a "weapons of mass destruction" attack. Subsequently, more than 3,000 persons have been trained and we have continued developing the network and capacity.
- The Department of Justice praised Metro for how well we performed in a simulation exercise conducted at Adelphia Coliseum last September.
- A simulation does not translate into actually protecting the community if we were to be attacked. It does give us a better chance of performing appropriately than if we had not had several opportunities to test the plan.
- Well before the September 11th attacks, we began monitoring 911 calls for increased reports of illnesses. As public health professionals we depend on physicians having heightened awareness and reporting of symptoms. This process of monitoring and reporting is part of public health's foundation and makes us proactive rather than "just waiting for reports of illness."
- With biologicals, the process is no different than what we do on an everyday basis whether the organism mobilizing is *E. coli*, tuberculosis, salmonella, influenza, or anthrax. The process is early detection through active surveillance, diagnosis, early intervention, and prevention.
- The Health Department is part of a national Health Alert Network in place connecting the Centers for Disease Control and Prevention with state and local health officials so that alerts can transmit in minutes. We have "blast fax" capabilities which allow us to transmit information quickly and en masse to our community physicians and area hospitals. These two things have been tested and work.
- If such an attack were ever to take place, we have access to a stockpile of pharmaceutical supplies that include antidotes for chemical warfare agents, antibiotics for biologic agents as well as intravenous fluids and ventilators.
- There have been questions about the use of gas masks — with a biological attack there is no sudden visible explosion that would signal a warning to put on a gas mask. You would have to wear these gas masks 24 hours a day seven days a week to prepare for these types of events. That's the exact reaction that the terrorists want from Americans.
- Is our water safe? Neither anthrax nor smallpox or others speculated to be used in a biological attack are transmitted by water. You will not turn on your tap and be exposed to germs such as anthrax or smallpox. Chlorine kills most bacteria and others are filtered out through the purification process. These two particular germs have never been transmitted through water.
- We do not know where or when an incident may occur, but we do know how to organize ourselves to stem the spread and address the acuteness of any situation.

Bioterrorism Questions Answered: Smallpox and Anthrax

The threat of terrorism and bioterrorism are significant public health concerns. Besides bombs and military action, the weapons of terrorism can take many forms—biologic agents (bacteria or viruses), chemical agents (gases), or nuclear agents (radiation). As with emerging infectious diseases, early detection and control of biological and chemical attacks depends on a strong and flexible public health system at the local, state, and federal levels. Primary health care providers and emergency medical personnel must also be vigilant because they will likely be the first to observe and report unusual illness or injuries. Everyone in the public health and medical communities should be prepared to fight terrorism.

The Centers for Disease Control and Prevention (CDC) maintains the National Pharmaceutical Stockpile which contains large quantities of antibiotics, chemical antidotes, and medical supplies for use in the event of biological or chemical terrorist attack. National stockpiles are located strategically around the country so that supplies can be delivered to outbreak locations within 12 hours of notification. The Metropolitan Health Department of Nashville and Davidson County (MHD) also has a stockpile of antibiotics and supplies to aid our local first responders - Emergency Medical Personnel and hospital emergency departments. Detailed procedures for responding to a terrorist attack are in place at MHD, Nashville's Office of Emergency Management, the Tennessee Department of Health, and all relevant federal agencies.

The amount of information available on bioterrorism and chemical agents is growing fast. For more information on agents not covered here, please go to the CDC's web-site at <http://www.bt.cdc.gov/Agent/Agentlist.asp>

MHD has received numerous calls from citizens concerning bioterrorism, especially regarding smallpox and anthrax and vaccine availability for these two agents. Below is information from the National Immunization Program at CDC and other credible sources that will assist you in answering questions concerning these two diseases, vaccine availability, and links to the smallpox and anthrax vaccine recommendations.

Smallpox

Smallpox is a viral infection that has a 20-40% mortality rate if untreated. Only about 30% of exposed individuals subsequently become ill, making it less communicable than measles and influenza. In 1980, the World Health Organization certified that smallpox had been eradicated from the planet. Currently, the only known remaining samples of smallpox virus are held in secure facilities at the CDC in Atlanta, GA, and the Institute for Viral Preparations in Koltsovo, Russia. Although destruction of all remaining samples of smallpox virus has been proposed, the United States government has decided to permanently store its samples of smallpox virus. Allegations and rumors of smallpox virus stocks in other locations have not been verified.

Smallpox Vaccine

Smallpox vaccine is not available to physicians, the general public, or health departments. It was removed from the commercial market in 1983, and is no longer a licensed vaccine in the United States. The United States Public Health Service maintains a stockpile of 15.4 million doses for emergency use only. Only high-risk laboratory workers are allowed to get the vaccine through a special permit from the Food and Drug Administration (FDA). The FDA has not approved release of the smallpox vaccine to the general public, and the current national plan for bioterrorism preparedness does not include widespread use of smallpox vaccine. A new vaccine is being developed and should be available in 2003. For more information on the smallpox vaccine, please go to <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5010a1.htm>

Anthrax

Anthrax is a bacterial infection that can be treated with antibiotics if detected early. It can exist in the soil as an inert spore form for long periods of time. This spore form of the bacteria has been weaponized for release in aerosol form. If spores are inhaled, digested, or enter a human body through a cut or abrasion of the skin, they quickly germinate to produce disease causing bacteria. Person-to-person spread, or communicability, of the disease is extremely unlikely. Only persons who have direct contact with the spores will become infected. It has an 80-90% mortality rate if inhaled or ingested despite treatment. In the event of an outbreak, the local stockpile and the National Pharmaceutical Stockpile will be mobilized to treat infected persons. For more general information on anthrax, please go to http://www.cdc.gov/ncidod/dbmd/diseaseinfo/anthrax_g.htm

Anthrax Vaccine

Anthrax vaccine is not available to the general public. Currently, only military personnel, workers in high-risk laboratories, and persons handling imported animal hides can receive the vaccine. The vaccine is not licensed for children under age 18 or adults over age 65. More information on anthrax vaccine recommendations from the United States Public Health Service's Advisory Committee on Immunization Practices can be found at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4915a1.htm>, or by contacting the Vaccine Immunization Program in the U.S. Army Surgeon General's Office – 1-877-GET-VACC, <http://www.anthrax.osd.mil>.

More Information

For more information on bioterrorism and domestic preparedness, we recommend you visit the following sites:

- CDC's Public Health Emergency Preparedness and Response information - <http://www.bt.cdc.gov/>
- CDC's list of known biological and chemical agents which may be used in biological or chemical terrorism - <http://www.bt.cdc.gov/Agent/Agentlist.asp>
- Red Cross's Family Disaster Planning - <http://www.redcross.org/services/disaster/beprepared/familyplan.html>
- Red Cross's Disaster Supplies Kit information - <http://www.redcross.org/services/disaster/beprepared/supplies.html>
- United States Response to CBW Terrorism and Domestic Preparedness - <http://www.cns.miis.edu/research/cbw/domestic.htm>
- The National Domestic Preparedness Office - <http://www.ndpo.gov/>

Metropolitan Health Department Contacts

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Editor's Note: The following is excerpted from comments made by Dr. Jeffrey P. Koplan, Director of the Centers for Disease Control and Prevention (CDC) on September 21, 2001 to state health officials. Dr. Koplan shared his thoughts on being prepared for public health threats and emergencies.

Building Infrastructure to Protect the Public's Health

In public health, we all act to be prepared for a range of disasters and emergencies and have done so admirably over many decades. The events of last week were devastating. They have caused all of us to look at "preparedness" in a new way, and the nature and scope of threats in a new way, as well.

My top priority as CDC's Director continues to be to build a solid public health infrastructure—both here at CDC, as well as the infrastructure you need to protect the health of your citizens. We've been working with many of you and your national organizations, such as ASTHO, the National Association of County and City Health Officials, the Association for Schools of Public Health and others to develop a list of the core capacities that every public health system needs. ...Congress recently tasked us with identifying these capacities in the Public Health Improvement Act of 2000, sponsored by Senator Frist and Senator Kennedy. I am pleased to briefly share with you what we collectively have decided are seven priority areas for capacity building:

Our first priority is the public health **workforce**. I can't over emphasize the need for a well trained, well staffed, fully prepared public health workforce. They are the basis for our public health system.

Second, we need **laboratory** capacity to produce timely and accurate results for diagnosis and investigation.

Third is **epidemiology and surveillance**, which will give you the ability to rapidly detect health threats.

Fourth, secure, accessible **information systems** are essential for us to communicate rapidly, analyze and interpret health data, and provide public access to health information.

Fifth, we need solid **communication**—a swift, secure, two-way flow of information. This includes the ability to provide timely, accurate information to the public and advice to policy-makers in public health emergencies. We also need the ability to routinely translate scientific information and provide health information.

Next, we need effective **policy and evaluation** capability. We need to routinely evaluate and improve the effectiveness of public health programs. We also need a way to assess where we are in order to establish priorities for health improvement. Then we can develop logical plans to address these priorities.

Finally, we need a **preparedness and response** capability. This includes response plans, as well as testing and maintaining a high-level of preparedness.

So—what will happen if we don't make investments in these areas and fail to establish these capacities nationwide? In Atlanta, our neighboring counties aren't just Gwinnett, Douglas, and Forsyth but also Alameda in California, Hillsborough in Florida, and Dutchess in New York. Indeed, our neighbors are Lagos, Calcutta, Shanghai, and Lima, as well.

Either we are *all protected* or we are *all at risk*. We must ensure that every health agency is fully prepared and that every community is served by an effective public health system.